

ABSTRACT

A spiral conveyor with automatic flow control includes a plurality of curved segments connected to form a spiral for the flow by gravity of articles from an upper level to a lower level. Each of the segments includes freely rotating skate wheels forming a conveying surface and a controlled, powered cylindrical roller. A sensor mounted in each segment senses the presence of an article in the segment. A controller receives the signals from the sensors and activates the associated roller for transport mode to assist articles through the conveyor if the path is clear, or if the downstream portion of the conveyor is blocked, to reverse the roller for accumulate mode to hold articles in the segment until the path is cleared.